

67th International Astronautical Congress 2016

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Utilization & Exploitation of Human Spaceflight Systems (3)

Author: Dr. Tara Ruttlely
National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States,
tara.m.ruttlely@nasa.gov

Dr. Julie A. Robinson
National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States,
julie.a.robinson@nasa.gov

Ms. Judy Tate-Brown
Barrios Technology, Inc., United States, judy.tate-brown-1@nasa.gov

Ms. Nekisha Perkins
Barrios Technology, Inc., United States, nekisha.m.perkins@nasa.gov

Dr. Luchino Cohen
Canadian Space Agency, Canada, luchino.cohen@asc-csa.gc.ca

Dr. Isabelle Marcil
Canadian Space Agency, Canada, isabelle.marcil@asc-csa.gc.ca

Dr. Marc Heppener
European Space Agency (ESA), The Netherlands, marc.heppener@esa.int

Dr. Jason Hatton
European Space Agency (ESA), The Netherlands, jason.hatton@esa.int

Mr. Kazuyuki Tasaki
Japan Aerospace Exploration Agency (JAXA), Japan, tasaki.kazuyuki@jaxa.jp

Ms. Sayaka Umemura
Japan Aerospace Exploration Agency (JAXA), Japan, umemura.sayaka@jaxa.jp

Dr. Georgy Karabadzhak
TSNIIMASH, Russian Federation, gfk@tsniimash.ru

Dr. Igor V. Sorokin
S.P. Korolev Rocket and Space Corporation Energia, Russian Federation, igor.v.sorokin@gmail.com

Dr. Vittorio Cotronei
Italian Space Agency (ASI), Italy, vittorio.cotronei@asi.it

Mr. Sabbagh Jean
Italian Space Agency (ASI), Italy, jean.sabbagh@asi.it

INTERNATIONAL RESEARCH RESULTS AND ACCOMPLISHMENTS FROM THE
INTERNATIONAL SPACE STATION—A NEW COMPILATION

Abstract

In 2016, the International Space Station (ISS) partnership published the first-ever compilation of international ISS research publications resulting from research performed on the ISS through 2011 (Expeditions 0 through 30). *International Space Station Research Accomplishments: An Analysis of Results*

From 2000-2011 is a collection of over 1,200 journal publications that describe ISS research in the areas of biology and biotechnology; Earth and space science; educational activities and outreach; human research; physical sciences; technology development and demonstration; and, results from ISS operations. This paper will summarize the ISS results publications obtained through 2011 on behalf of the ISS Program Science Forum that is made up of senior science representatives across the international partnership.

NASA's ISS Program Science office maintains an online experiment database (www.nasa.gov/iss-science) that tracks and communicates ISS research activities across the entire ISS partnership, and it is continuously updated by cooperation and linking with the results tracking activities of each partner. It captures ISS experiment summaries and results and includes citations to the journals, conference proceedings, and patents as they become available. This content is obtained through extensive and regular journal and patent database searches, and input provided by the ISS international partners ISS scientists themselves.

The *International Space Station Research Accomplishments: An Analysis of Results From 2000-2011* is a testament to the research that was underway even as the ISS laboratory was being built. It reflects the scientific knowledge gained from ISS research, and how it impact the fields of science in both space and traditional science disciplines on Earth. Now, during a time when utilization is at its busiest, and with extension of the ISS through at least 2024, the ISS partners work together to track the accomplishments and the new knowledge gained in a way that will impact humanity like no laboratory on Earth. Examples of the highest profile publications to date from each discipline will also be presented.

As ISS research activities and operations continue, scientific data derived from earlier experiments will continuously be re-examined, refined, and assembled with new data and findings, including data from other fields never considered. New results will be produced, allowing breakthroughs in new areas of research and innovative solutions to problems on Earth. The ISS Program Science Forum will continue to capture and report on these results in the form of journal publications, conference proceedings, and patents. We anticipate that successful ISS research will continue to contribute to the science literature in a way that helps to formulate new hypotheses and conclusions that will enable science advancements across a wide range of scientific disciplines both in space and on Earth.